

## REMARKS

Claims 1, 3-15, and 27-30 are pending in the application. Claims 1, 13 and 27 are independent. By the foregoing Amendment, claims 1, 13, 14, and 28 have been amended and claim 2 has been canceled. These changes are believed to introduce no new matter and their entry is respectfully requested.

### Rejection of Claims 14 and 28 Under 35 U.S.C. §112, Second Paragraph

In the Office Action, the Examiner rejected claims 14 and 28 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention, citing informalities. By the foregoing Amendment, Applicants have amended claims 14 and 28 to accommodate the Examiner. Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejection to claims 14 and 28.

### Rejection of Claims 1, 3-4, and 10-15 Under 35 U.S.C. §102(e)

In the Office Action, the Examiner rejected claims 1, 3-4, and 10-15 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2002/0124134 to Chilton (hereinafter "*Chilton*"). Applicants respectfully traverse the rejection.

A claim is anticipated only if each and every element of the claim is found, either expressly or inherently, in a reference. (MPEP §2131 *citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). The identical invention must be shown in as complete detail as is contained in the claim. *Id. citing Richardson v. Suzuki Motor Co.*, 868 F.2d 1226,1236 (Fed. Cir. 1989)).

Amended independent claim 1 recites in pertinent part "receiving a resource access request to access a shared resource at a first computing platform; determining a second computing platform via which the shared resource may be accessed, *wherein the first and second computing platforms comprise a first server blade and a second server blade*, respectively, operating in a blade server environment; sending the resource access request to the

second computing platform; and accessing the shared resource via the second computing platform” (emphasis added). Support for these changes can be found in original claim 2, thus no new search is necessitated by the amendment.

In the Office Action, the Examiner states that *Chilton* discloses at paragraph [0036] receiving a resource access request to access a shared resource at a first computing platform, determining a second computing platform via which the shared resource may be accessed, sending the resource access request to the second computing platform, and accessing the shared resource via the second computing platform. Applicants respectfully disagree.

Applicants respectfully submit that *Chilton* fails to teach the identical invention as contained in claim 1. First, *Chilton* does not appear to contemplate computing platforms attempting to access a shared resource. Thus *Chilton* fails to disclose receiving a resource access request to access a shared resource at a first computing platform or determining a second computing platform via which the shared resource may be accessed as the Examiner asserts. *Chilton* also fails to disclose sending the resource access request to the second computing platform or accessing the shared resource via the second computing platform as the Examiner asserts. Second, *Chilton* fails to disclose the use of server blades as a computing platform, which the Examiner concedes with reference to claim 2. Accordingly, Applicants respectfully submit that claim 1 is patentable over *Chilton*.

Claims 3-4 and 10-12 properly depend from claim 1. Accordingly, Applicant respectfully submits that claims 3-4 and 10-12 are patentable for at least the same reasons that claim 1 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 1, 3-4, and 10-12.

Amended independent claim 13 recites in pertinent part “configuring the plurality of storage devices as a virtual storage volume; maintaining a global resource map that maps input/output (I/O) blocks defined for the virtual storage volume to corresponding storage devices that actually host the I/O blocks; receiving a data access request identifying an I/O block from

which data are to be accessed via the virtual storage volume; identifying a computing platform via which a target storage device that actually hosts the I/O block may be accessed through use of the global resource map, *wherein the computing platform comprises a server blade*; routing the data access request to the computing platform that is identified; and accessing the I/O block on the target storage device via the computing platform that is identified” (emphasis added). Support for these changes can be found in original claim 2, thus no new search is necessitated by the amendment.

In the Office Action, the Examiner states that *Chilton* discloses configuring the plurality of storage devices as a virtual storage volume at paragraphs [0034-0036]; maintaining a global resource map that maps input/output (I/O) blocks defined for the virtual storage volume to corresponding storage devices that actually host the I/O blocks at paragraphs [0034-0036]; receiving a data access request identifying an I/O block from which data are to be accessed via the virtual storage volume at paragraph [0036]; identifying a computing platform via which a target storage device that actually hosts the I/O block may be accessed through use of the global resource map at paragraphs [0035-0036]; routing the data access request to the computing platform that is identified at paragraph [0036]; and accessing the I/O block on the target storage device via the computing platform that is identified paragraph [0036]. Applicants respectfully disagree.

Applicants respectfully submit that *Chilton* fails to teach the identical invention as contained in claim 13. As discussed above with reference to claim 1, *Chilton* does not appear to contemplate computing platforms attempting to access a shared resource. Thus *Chilton* does not disclose identifying a computing platform via which a target storage device that actually hosts the I/O block may be accessed through use of the global resource map as the Examiner asserts. *Chilton* also does not disclose routing the data access request to the computing platform that is identified or accessing the I/O block on the target storage device via the computing platform that is identified as the Examiner asserts. Second, *Chilton* fails to disclose the use of server blades as a computing platform, which the Examiner concedes with reference to claim 2. Accordingly, Applicants respectfully submit that claim 13 is patentable over *Chilton*.

Claims 14-15 properly depend from claim 13. Accordingly, Applicant respectfully submits that claims 14-15 are patentable for at least the same reasons that claim 13 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988))). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 13-15.

Rejection of Claim 2 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claim 2 under 35 U.S.C. §103(a) as being obvious over *Chilton* in view of U.S. Patent No. 6,968,414 to Abbondanzio et al. (hereinafter “*Abbondanzio*”). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, an Examiner must show that there is some expectation of success that the combination proffered would result in the claimed invention. The Examiner also must show that the cited references teach each and every element of the claimed invention. (MPEP §2143.) citing *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was independently known in the prior art. *KSR Int'l C. v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007). It can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed. However, an Examiner’s reasoning that is only a mere statement that modifications to the cited reference(s) would have been well within the ordinary skill of the art at the time the claimed invention was made is insufficient to support an obviousness rejection. MPEP §2143.01 ((citing *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). (See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000)).

In the Office Action, the Examiner concedes that *Chilton* fails to disclose the use of blade servers but asserts that *Abbondanzio* discloses blade servers. The Examiner then determines that it would have been obvious to “incorporate the use of blade servers in distributed computing systems... for the purpose of permitting hot-swappable expansion of a server system.” Applicants respectfully submit that the Examiner’s reasoning is faulty. First, *Chilton* is not directed to a distributed computing environment. *Chilton* appears to be directed to a cluster of

data storage devices, *i.e.*, integrated cached disk arrays (ICDAs) in a storage area network (SAN). The Examiner offers no specific reason as to why one of ordinary skill in the relevant art would want to combine the blade servers of *Abbondanzio* with the data storage devices of *Chilton*.

Second, the Examiner cannot rely on the *mere statement* that it would have been obvious to “incorporate the use of blade servers in distributed computing systems... for the purpose of permitting hot-swappable expansion of a server system.” to support the obviousness rejection because as discussed above a statement that modifications to the cited reference(s) would have been well within the ordinary skill of the art at the time the claimed invention was made *is insufficient* to support an obviousness rejection. Applicants respectfully submit that absent a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed, the Examiner has not made out a *prima facie* case of obviousness with respect to claim 2.

Third, although claim 2 has been canceled and as such the rejection to it is moot, Applicants have amended claims 1 and 13 to incorporate the subject matter of claim 2. Accordingly, Applicants respectfully submit that claims 1 and 13 are patentable over the combination of *Chilton* and *Abbondanzio*.

#### Rejection of Claims 5-9 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 5-9 under 35 U.S.C. §103(a) as being obvious over *Chilton* in view of U.S. Patent No. 5,696,895 to Hemphill et al. (hereinafter “*Hemphill*”). Applicants respectfully traverse the rejection.

Claims 5-9 properly depend from claim 1. Accordingly, Applicant respectfully submits that claims 5-9 are patentable for at least the same reasons that claim 1 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 5-9.

Rejection of Claims 27-30 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 27-30 under 35 U.S.C. §103(a) as being obvious over *Chilton* in view of *Abbondanzio* in further view of *Hemphill*. Applicants respectfully traverse the rejection.

Independent claim 27 recites in pertinent part “a chassis, including a plurality of slots in which respective server blades may be inserted; an interface plane having a plurality of connectors for mating with respective connectors on inserted server blades and providing communication paths between the plurality of connectors to facilitate in out of band (OOB) communication channel; and a plurality of server blades, each including a processor and firmware executable thereon to perform operations including: receive a resource access request from an operating system running on a requesting server blade to access a shared resource hosted by at least one of the plurality of server blades; determining a target resource host from among the plurality of server blades that hosts a target resource that may service the resource access request; sending the resource access request to the target resource host; and accessing the target resource via the target resource host to service the resource access request” (emphasis added).

In the Office Action, the Examiner cited *Chilton* for teaching receive a resource access request from an operating system running on a requesting server blade to access a shared resource hosted by at least one of the plurality of server blades; determining a target resource host from among the plurality of server blades that hosts a target resource that may service the resource access request; sending the resource access request to the target resource host; and accessing the target resource via the target resource host to service the resource access request. The Examiner cited *Abbondanzio* for teaching a chassis, including a plurality of slots in which respective server blades may be inserted; an interface plane having a plurality of connectors for mating with respective connectors on inserted server blades and providing communication paths between the plurality of connectors to facilitate in out of band (OOB) communication channel; and a plurality of server blades, each including a processor and firmware to perform operations. The Examiner then determines that it would have been obvious to “incorporate the use of blade servers in distributed computing systems... for the purpose of permitting hot-swappable

expansion of a server system.” As discussed above with reference to claim 2, Applicants respectfully submit that the Examiner’s reasoning is faulty.

Again, *Chilton* is not directed to a distributed computing environment. *Chilton* appears to be directed to a cluster of data storage devices, *i.e.*, integrated cached disk arrays (ICDAs) in a storage area network (SAN). The Examiner offers no specific reason as to why one of ordinary skill in the relevant art would want to combine the blade servers of *Abbondanzio* with the data storage devices of *Chilton*.

Also, the Examiner cannot rely on the *mere statement* that it would have been obvious to “incorporate the use of blade servers in distributed computing systems... for the purpose of permitting hot-swappable expansion of a server system.” to support the obviousness rejection because as discussed above a statement that modifications to the cited reference(s) would have been well within the ordinary skill of the art at the time the claimed invention was made *is insufficient* to support an obviousness rejection. Applicants respectfully submit that absent a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed, the Examiner has not made out a *prima facie* case of obviousness with respect to claim 2.

*Hemphill* fails to make up for this deficiency. That is, although the Examiner asserts that it would have been obvious to incorporate the use of out-of-band (OOB) communication channel with distributed server systems, the Examiner has not provided a specific reason as to why one of ordinary skill in the relevant art would want to combine the blade servers of *Abbondanzio* with the data storage devices of *Chilton*. Accordingly, Applicants respectfully submit that claim 27 is patentable over *Chilton* in view of *Abbondanzio* in further view of *Hemphill*.

Claims 28-30 properly depend from claim 27. Accordingly, Applicant respectfully submits that claims 28-30 are patentable for at least the same reasons that claim 27 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988))). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 27-30.

### CONCLUSION

Applicant submits that all grounds for rejection have been properly traversed, accommodated, or rendered moot and that the application is now in condition for allowance. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

Respectfully submitted,  
BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

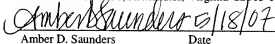
Date: May 18, 2007

/Jan Little-Washington/  
Jan Little-Washington  
Reg. No. 41,181  
(206) 292-8600

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, California 90025  
(310) 207-3800

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Amber D. Saunders

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